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Expanding Lending to Agricultural Input Suppliers in Bangladesh

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Introduction

One way of lending funds to the agricultural sector that will ensure a high rate of loan recovery is to use input suppliers and/or the processors of agricultural products to on-lend funds to farmers and to collect loans from farmers. This type of lending is common in most countries. The lending activities of input suppliers and traders/processors comprise part of what is called the informal financial sector. Many studies of the characteristics and performance of the informal financial sector have been completed in developing countries and particularly in Bangladesh.

Input suppliers and traders/processors offer many advantages to borrowers in terms of access, service, convenience, and timeliness. Input suppliers and traders/processors clearly have the incentives to provide quality credit service to farmers as a way of financing sales of inputs or as a way of buying products from farmers through advances on crop or through other credit linkages. Because these kinds of firms are located in the producing areas and have worked with farmers for years, they know their clients, their cash flow and will select only the creditworthy borrowers.

The major criticism of these credit arrangements centers on the tied nature of the credit and the potential for supposed exploitation of the borrower through excessive interest rate charges. Many authors have studied the issue of usurious interest charges without finding evidence of widespread exploitation in these credit arrangements. Empirically, the fact that large numbers of firms are found involved in these activities suggests that these are open, competitive markets with high rates of entry and exit, and low profit margins where firms have little opportunity to earn monopoly profits. It may be that merchants offer credit to customers in many instances, not to exploit a situation as some argue, but rather as another way to compete in the market to attract customers and to increase their volume of business.

In Bangladesh, these input dealers could be important private sector alternatives in the near future to the current system of formal agricultural credit that depends largely on government owned specialized banks such as the Bangladesh Krishi Bank, BKB. As has been discussed elsewhere, the BKB has many serious problems (e.g. over-staffed, high cost operation, low loan recovery, and political use of loan forgiveness) that must be solved if it is to become a viable financial institution. Four nationalized commercial banks and 9 private commercial banks also lend to the agricultural sector. Input supplier credit increases the number of alternatives

that farmers have from which to choose when deciding to borrow funds. More alternatives mean more competition and better terms and service for borrowers.

The World Bank is interested in assisting the agriculture, livestock and agro-industrial sectors with credit and wishes to identify some private sector alternatives to the BKB for lending in the near future. The remainder of this report will discuss the linking of selected private commercial banks and nationalized commercial banks with input dealers for fertilizer, irrigation and agricultural equipment, and pesticides as private sector alternatives to enhance the availability of agricultural credit in the near future.

The terms of reference include a review of the current credit activities of fertilizer and agricultural equipment dealers, the terms and conditions of the credit, an examination of the obstacles to expanding their access to formal credit, dealer willingness and ability to expand lending, and institutional reforms and technical assistance required to increase their lending effectiveness. The present report draws heavily upon the published work of authors who have studied input supplier finance issues in Bangladesh and also upon numerous interviews completed by the mission during July, 1992.

Fertilizer Marketing and Credit

Market Size and Organization

Bangladesh consumes over 2.1 million metric tons of fertilizer materials annually (about US$ 300 million at an average price of US$ 150 per metric ton). The fertilizer market grew at nearly 8 percent annually from 1977 to 1984 and at even higher rates before 1977 (Hossain). Although the fertilizer market continues to be dynamic, the growth rate has slowed to about 5 percent annually since 1984. Urea, triple superphosphate (TSP) and muriate of potash (MP) are the main fertilizers used. Bangladesh normally produces enough urea to satisfy domestic demand and imports the other materials. The major participants in the fertilizer market are illustrated in Figure 1.

GOB Fertilizer Policy Reforms

Government of Bangladesh (GOB) policy has emphasized growth of competitive markets and increased private sector participation in marketing and distribution of fertilizer, irrigation equipment, fuel, improved seeds and pesticides since 1978. One result of this policy has been that Bangladesh has changed completely the fertilizer marketing system by eliminating the government owned parastatal monopoly control of pricing and distribution. Until 1978, the Bangladesh Agricultural Development Corporation (BADC)

controlled all aspects of the importation of fertilizers, purchase of fertilizers locally from the domestic manufacturer Bangladesh Chemical Industries Corporation (BCIC), transportation, storage, financing, wholesale and retail sales and pricing. Prior to this, the private sector role was limited to a small portion of the retail sales. Many problems of pricing, subsidies, financing, inefficiencies of distribution and warehousing, high costs, shortages of supplies, and complaints of poor service emerged during the BADC era.

IFDC Project

With USAID assistance in 1978, the International Fertilizer Development Center (IFDC) on contract through the Fertilizer Distribution Improvement Project (FDIP-I) began work with the GOB to reform the fertilizer sector and to increase private sector participation in the fertilizer market. The work has continued under an expanded, more policy oriented project (FDIP-II) since March, 1987 and a credit component that was initiated in June of 1989.

The USAID funded FDIP projects provide: (1) foreign exchange to finance the importation of fertilizers and (2) long term and short term technical assistance to the commercial banks, distributors, wholesalers, retailers, BADC, BCIC, farmers, and GOB on numerous aspects of fertilizer pricing, marketing, distribution, storage, credit, infrastructure, and promotion of proper fertilizer use. The fertilizer imports generated a US$ 15 million local currency fund (three installments of US$ 5 million in June of 1989, 7 million in May of 1990 and 3 million in December of 1990) designated for lending to fertilizer dealers through the Bangladesh Bank and commercial banks. Even though the policy and institutional changes have been made slowly, the GOB and the FDIP have been very successful at achieving reform of the fertilizer sector.

The revolving credit fund in the Bangladesh Bank has grown in three years to about US$ 22 million from the initial amount of US$ 15 million. Using an estimated annual turnover of six, the fund can finance over US$ 132 million dollars of fertilizer sales annually, almost 40 percent of estimated annual sales.

Participating banks lend to borrowers selected by the banks and claim refinancing from the Bangladesh Bank. Fourteen banks including 5 public sector and 9 private sector banks participate in this commercial credit program (CCP). The program uses a system of cash credits for borrowers approved by the participating banks for a term of 90 days. Borrowers are expected to repay the cash credit within 90 days and can then borrow again which is common among the dealers. Participating banks approve each borrower up to a credit limit based upon the creditworthiness of the applicant. The cash credit limit approved normally requires pledge or hypothecation of

the fertilizer and also some additional collateral such as real estate or bank deposits. Most dealer loans exceed takas 3 million but loans as small as takas 30,000 and as large as takas 100 million have also been made. Total amount disbursed has increased from takas 336 million in 1989-90 to takas 873 million in 1990-91. The repayment rate has been 100 percent to date.

The funds cost 8.75 percent annual interest to the borrowing commercial bank that lends the funds to the fertilizer dealer at 15 percent, reduced from a maximum of 16 percent in December, 1991. National Bank LTD., Arab Bangladesh Bank LTD., Agrani Bank, Rupali Bank LTD., Uttara Bank LTD., Janaka Bank, Al Baraka Bank, IFIC Bank LTD., and United Commercial Bank have disbursed most of the funds (Table 1). The participating banks reached 465 wholesalers and retailers through 265 branches in 1990-91, and in July, 1992 had over 800 borrowers, primarily wholesalers. This may appear to be a large number of borrowers, but the number of fertilizer wholesalers in the country is estimated to be about 8,000 and the number of retailers is estimated to be about 90,000.

USAID is planning a follow on Agribusiness Technology Project that will expand the scope of the current project. In addition to fertilizer, the proposed new project (US$ 80 million) will include US$ 50 million for imports of primarily fertilizers but could also include seed, processing equipment, machinery, and other seed related technological components. Short and long term technical assistance, workshops, seminars, and visits to other countries for bankers, dealers, and other project participants are planned as part of the project. A counterpart commercial credit fund of US $40 million is planned that will operate in a manner similar to the current fertilizer program.

Sources and Uses of Credit

The most recent comprehensive study of the fertilizer marketing system is 10 years old and was completed by Quasem. The study, conducted in eight purposively selected upazilas located throughout Bangladesh, interviewed a total of 27 wholesalers and 155 retailers in 1982-83. This national study of the finance and credit of fertilizer wholesalers and retailers found that self-financing and informal credit were the main sources of funds in 1982-83.

Fertilizer wholesalers' sources of working capital were self-financing (71%), formal credit (8%) and informal credit (20%). Average amount of working capital per wholesaler equalled takas 76,963 excluding any fixed capital investments. Monthly average sales were about 40 tons during the Boro season (December to March). About 50 percent of the wholesalers were dependent upon hired godowns for storage. About 31 percent of wholesalers also sold to farmers.

Fertilizer retailer sources of financing were self-financing (80%), formal credit (11%), and informal credit (9%). Average amount of working capital per retailer equalled takas 15,054 excluding any fixed capital investments. Monthly average sales during the Boro season were about 12 tons. About 40 percent of the retailers had their own storage facilities. Retailers bought most of their supplies from wholesalers (54%), some directly from distribution centers (15%) and from USCs (28%). Over 80 percent of the retailers collected about 50 percent of their fertilizer on short-term credit from wholesalers. Retailers reported that 64 percent of the sales to farmers were for cash and the balance on short-term credit.

Since initiation of the IFDC program, dealers have very likely increased the share of formal credit and reduced the share from other sources. However, no comprehensive recent studies are available to indicate how financing has changed since 1982-83. A second study of dealer financing similar to the earlier one is needed.

Some amount of credit flows through the fertilizer marketing system to the farmer but the amount appears to be small and cannot be well documented. An IFDC survey of 1,020 farmers who purchased fertilizer in all 20 regions of Bangladesh during February of 1990 indicated that 85 percent paid cash and only 15 percent of farmers received credit (Table 2). Most farmers borrowed from friends and relatives at no interest, from dealers without interest or from the moneylenders with interest at 51 percent annually. Only 2 percent of farmers had bank credit that cost 16 percent annually.

Research results and field interviews indicate that from a hypothetical distributor loan of 100 takas; on lending of about 45 takas flows to the sub-distributor for about 16 days time and about 33 takas flows from sub-distributor to retailer for about 42 days time. The retailer lends no more than 10 takas to the farmer for about 20 days (IFDC).

Each wholesaler tends to sell to about 45 to 50 retailers with about 50-60 percent of sales for credit and the remaining portion for cash. If more funds were available, dealers indicated a willingness to lend more to their customers in the system. Field interviews with distributors (wholesalers) also indicated that more credit would enable them to sell additional fertilizer by enabling them to compete more effectively. In addition, with more credit many wholesalers would expand their business by adding new products to sell such as pesticides, agricultural machinery, or build additional warehouses. With more credit, they would also provide more credit to retailers who would also sell more on credit to farmers. In the interviews, all dealers emphasized trust, long term relationships and creditworthiness of borrowers when discussing the extension of credit to lower levels of the marketing system. They believe, most appropriately, that such attributes

will ensure high repayment rates.

Fertilizer traders tend to be relatively young (67% of the wholesalers and 73% of the retailers were under 40 years of age). All the wholesalers and 88 percent of the retailers were literate. Although 94 percent of the traders owned 5 or more acres of land, 78 percent of the wholesalers and 60 percent of the retailers consider non-farming as their principal occupation. Only 22 percent of the wholesalers and 25 percent of the retailers trade exclusively in fertilizer. Average stock per trader was 50 maunds (84 lbs). Other commodities traded include pesticides, construction materials, groceries, general stores, and occasionally grain and jute.

With the project, service to farmers has improved. Fertilizer dealers remain open the entire business day and sometimes even at night. They sell on credit and also disseminate technical information on fertilizer use to farmers.

A competitive market between private dealers and the BADC has been developed. Private sector market share in total national sales of all fertilizers increased to over 84 percent in 1990-91 from 61 percent in 1989-90 and from nearly zero when the program began (IFDC). Private firms now handle all urea marketing and since March of 1989 have been allowed to buy urea directly from factories for the same price as BADC. At the same time, private firms were allowed to take delivery of imported fertilizer directly from ships at the ports. In a major policy reform, the GOB allowed private sector imports of fertilizer (previously BADC controlled all imports) for the first time in June of 1991.

Fertilizer retail and wholesale price controls have been eliminated, but the GOB retains control of the domestic price of imported materials that are currently subsidized by setting the domestic price about 23 percent below the cif cost or import parity price (IFDC). This subsidy applies to triple super phosphate (TSP) and muriate of potash (MP) which are the main imported materials. Bangladesh is self sufficient in urea production and has even exported urea in some years. While the GOB has agreed to eliminate the price subsidies, there has been some delay in implementing the agreement. Donors are currently working with the GOB on this issue.

The privatization policy has produced some positive results that can be expanded to other agribusinesses. Competition does work. Subsidized fertilizer prices are almost gone, subsidized credit is gone and subsidized distribution costs have been eliminated, yet the sector is performing well. Most would not have predicted such a result. Because of increased efficiencies, farmers have saved an estimated takas 924 million in 1990-91 from lower fertilizer prices (Figure 2 and IFDC, p.15). Other tangible benefits include increased availability of supply, improved timeliness, more credit, and better service to customers. A young,

dynamic, successful and entrepreneurial class has emerged in the growing fertilizer business that is providing the farmers with many benefits.

Irrigation and Agricultural Equipment Dealers

GOB Policy Reforms

Private sector merchants of irrigation and agricultural equipment have become increasingly important in the economy since the GOB reforms to encourage privatization in 1978. BADC which used to be the sole collector and distributor of all domestic and foreign fertilizers, pesticides, irrigation and agricultural equipment has given up control of these agricultural inputs to the private sector. Additional GOB reforms that are under way include eliminating the BADC controls that standardized imported irrigation equipment, liquidating BADC's stock of unsold shallow tube wells (STW), and low lift pumps (LLP), privatization of all functional deep tube wells (DTW) managed by BADC, writing off irreparable DTWs owned by BADC, and gradually withdrawing the subsidy on DTW in stock and selling the new DTWs at full cost (Dhaka Courier). Many of these reforms are included in financial assistance agreements between GOB and donor countries or lenders such as the IDA minor irrigation project for US$ 75 million recently approved for the period 1992-97.

Private sector participation has increased from less than 10 percent of sales to about 90 percent while the government owned BADC share has decreased from over 90 percent to about 10 percent of irrigation and agricultural equipment sales in the 1980s. Private sector firms consist of three types: (1) importer/distributors are new entrants to the business who deal in sizeable quantities of imports, they have developed, and sell to, a retail network of hardware/small machine tool stores in the districts; (2) importer/wholesalers are small commercial importers without any sales outlets who sell at wholesale prices to retail stores, they typically do not sell to end users; and (3) importer/retailers import engines in small quantities to sell to end-users from their own stores (Associated Services).

Sales of minor irrigation equipment, mainly for shallow tube wells and low lift pumps, include electric motors, diesel engines, pumps, pipes, and fittings account for a large part of these sales. Other agricultural equipment such as power tillers and spares also represent an important portion of these sales.

Irrigation Equipment Dealers

A recent study estimates STW sales at 36,000 units annually (some studies place the demand at 45,000 units annually) at a price of takas 25,000 to 30,000 per unit (annual sales of US$ 28 million)

depending upon the size of Chinese engine, pump, pipe, and filter selected and installation (Gisselquist). Possibilities for the expansion of irrigation equipment sales are strong because an estimated 2.3 million hectares are currently irrigated; and 3.8 million more hectares could be irrigated from a total of about 9.6 million hectares of net cultivable area.

These engines, of course, have multiple uses in boats, rice milling, and tilling so that if one includes these other uses, imports of engines are estimated at about 60-70,000 units annually or US$ 40 - 50 million. Because the Japanese engines cost over double the Chinese engines, over 95 percent of all the engines are imported from China. Most of the remaining 5 percent of engines are imported from Japan, India, and Korea. Pumps, pipe and other materials are manufactured locally.

An estimated 315 importers/wholesalers in the market centers sell to hundreds of retailers located throughout the country. Dhaka and Chittagong each have about 150 firms, Noakhali and Bogra have about 6 each and the rest are located in Comilla, Narayanganj, Faridpur, Jessore, and Rajshahi.

Since the elimination of BADC standardization of imported equipment, farmers may choose from a wide range of engine types and sizes. The Chinese National Agricultural Machinery Corporation quoted the following engine prices cif Chittagong in 1990:

Engine Size	Price of Engine	Percent of Imports
6 hp	US$ 180.00	47
8 hp	US$ 260.00	13
12hp	US$ 285.00	5
15hp	US$ 300.00	35

The distribution of imports by size of engine shows a clear preference for the smaller engines that small farmers can use to irrigate their land and also sell water to neighboring farmers. The Boro rice season from November to February accounts for 65 percent of the engine sales.

Analysis of import turnover data reveals that a large number of small firms participate in the import business. Small firms representing 50 percent of all firms were below imports of takas 550,000 (about US$ 17,000) accounting for 11 percent of imports. Another 20 percent of the firms importing from takas 550,000 to 1 million (about US$ 31,000) account for 14 percent of imports. About 11 percent of the importers (34 importers) with a turnover from takas 2 million to 7.5 million (about US$ 62,500 to 235,000) handled 20 percent of the imports. Ten importers with turnover greater than takas 7.5 million handled 28 percent of the imports (Associated Services). Thus, many firms that vary greatly in size and resources compete to import the engines.

Power Tiller Dealers

Trade sources estimate annual sales of power tillers at about 10,000 units (some estimate sales of 7,000 per year) at a price of about takas 53,000 per unit (US$ 1,400 for Chinese model) or US$ 14 million. The power tiller market can be expected to grow rapidly because the investment is clearly attractive to farmers. The financial rate of return (FRR) to all resources used in the production activity for power tillers is estimated to be 59 percent (World Bank).

Power tillers are imported mainly from China, 98 percent of the sales, with a few imports of more expensive models from Korea and Japan.

About 63 percent of the 104 importers were located in Dhaka, 34 percent in Chittagong and the balance were located in Bogra, Feni, Noakhali, Pabna, and Saidpur (Associated Services). Importer size ranged from one unit imported to as many as 400 units in 1990 but 67 percent of the imports are below 20 units each. Small importers bring in consignments of 10 to 15 tillers involving a cash outlay of about takas 500,000 represent the largest single group. Medium size importers bring in 20 to 30 tillers involving a cash outlay of takas one million. Large importers each had several consignments over takas 5 million and over 100 tillers (Associated Services).

Sources and Uses of Credit for Irrigation and Power Tiller Dealers

Importers of irrigation equipment and power tillers indicated that virtually all engines were imported under the Wage Earners Scheme and a very limited amount under the Bangladesh-China Barter Protocol in the past. With the recently approved IDA project (US$ 75 million) for minor irrigation, availability of foreign exchange will improve significantly for imports of irrigation equipment, power tillers and other items (World Bank). However, this IDA project provides no domestic financing for the working capital of dealers or for the financing of farmer purchases.

Until 1992, imports were financed through letters of credit from local banks with a downpayment of 5 to 30 percent of the value of letters of credit depending upon the client. When this downpayment was increased to 50 percent of the value by the Bangladesh Bank in 1990, the smaller importers had difficulty meeting the increased requirements (Associated Services).

Short-term post import financing from banks is available to some clients for up to 40 percent of the import value in the form of cash credits against merchandise at 18 percent interest. Many firms would like to see the post-import financing extended to a longer time period such as 180 days. This could be accomplished

with local banks through better terms on the cash credits or through a letter of credit for 180 days on the imported goods.

Most importers sell the engines without the related pumps, pipes and other equipment that can be purchased locally. Those importers who sell the complete unit buy the local components with cash from their own resources and with some credit from the pump manufacturers. If the firm has bank credit, the local purchases were financed 40 percent from own funds, 30 percent on credit from manufacturers and 30 percent from banks against hypothecation or pledge of goods that are released against payment received from customers.

One importer/distributor indicated that he has a sales outlet in Dhaka and a network of eight retailers located in the interior. As the retailers carry many brands, there is no exclusive sales arrangement. The importer supplies the engines on credit to the retailer. A representative collects from the retailer and remits payment to Dhaka. Loan recovery is very prompt and secure. No interest is charged explicitly. The firm carries spare parts for customers. Local mechanics provide the repair service.

Another importer/distributor sells 30 percent directly to farmers and 70 percent to retailers. This importer says that he does not extend credit.

Some retailers sell engines for STWs to trustworthy farmers on credit. Farmers make a cash downpayment of 50 percent upon purchase and the balance at harvest time usually 6 months later. The short payment period no doubt causes some cash flow problems for farmers. Longer term financing of the STWs for farmers appears desirable and new alternatives need to be found. Merchants say that the STW is a very profitable business for farmers and that the farmer can pay for the investment in two years. World Bank estimates of the financial rates of return (FRR) to all resources for STW investments is 39 percent and for LLP 60 percent.

Power tiller importers obtain bank credit to finance imports and they sell to wholesalers for cash for about 50 to 60 percent of their sales and the balance on credit. Wholesalers may sell to retailers on credit who usually sell to farmers for cash. Depending upon the farmer, the wholesaler or retailer may sell to the farmer on credit, but only for the best clients. Merchants perceive the risk of non-payment for the sale of larger items as too high for large sales on credit.

Formal sector loans to farmers for the purchase of irrigation equipment and power tillers have declined rapidly in the 1980s and have not increased in the 1990s. New loans for irrigation equipment as a percent of total agricultural credit declined from 16 percent in 1982-83 to 2 percent in 1987-88. New BKB loans for this purpose have declined from takas 681 million to 8 million in

this same period (Gisselquist). The Bangladesh Rural Development Board (BRDB) finances some STW sales to farmers. It is clear that farmers in recent years have had to depend increasingly upon cash purchases, dealer financing, or informal sector financing for the purchase of this equipment.

The Singer Company has found the hire/purchase financial instrument to perform very effectively in the financing of sewing machines, air conditioners, and other appliances to their clients. Repayment rate is said to exceed 95 percent. Some reasons for the strong performance may be that their customers tend to be more urban than rural, and have higher and more stable incomes than most rural clients. According to one informant, the Singer Company attempted to obtain local financing through commercial banks for its hire/purchase plan but was denied approval by the Bangladesh Bank. The reasons for this denial are not known. Later, the Singer Company proceeded to finance the plan from its own capital. This hire/purchase financial instrument would appear to offer much promise for the financing of power tillers, STWs and other equipment for local buyers. The constraints to increased use of this financing alternative appear to be central bank regulatory constraints and also commercial bank or buyer constraints. This type of financial instrument could be particularly attractive to the Islamic banks that do not want to charge explicitly for interest on loans. The Islami Bank already make use of leasing as a financial instrument.

Pesticide Dealers

In addition to increased amounts of fertilizer and machinery, modernizing agriculture requires pesticides for use in crop production. With the introduction of the high yield varieties (HYV) of rice, the demand for pesticides has increased rapidly. Pesticide imports have increased from about 2,500 metric tons in 1980-81 to 6,750 in 1989-90, about a 16 percent annual rate [Talukder and Rahman]. In the last half of the 1980s, pesticide use has increased at nearly 20 percent annually. Market potential is large because only an estimated 10 percent of the total cultivable land is treated with pesticides.

Besides agricultural production use, pesticides are also used for moth proofing and wood fabrics, timber production, protection of paper products, termite proofing of buildings, mildew proofing of textiles, and protection of stored agricultural commodities.

Just as in the case of fertilizers and machinery, the GOB decided to privatize the marketing and distribution of pesticides. Until 1978, the marketing of pesticides was controlled entirely by the GOB, and that operation involved a heavy subsidy on the cost of the chemicals and the cost of distribution. The subsidies were eliminated when the private marketers entered the business so that users had to pay the full costs of the chemicals and the costs of

distribution and the promotion. Most noteworthy is the fact that pesticide demand declined for a couple years but then increased rapidly in the 1980s despite the elimination of the subsidies.

Of the 25 companies that have products registered with the GOB, only 14 market the products actively at the present time. CEIBY-GEIGY (BD) Ltd has the largest market share at 34 percent, followed by Padma Oil Co. with 27 percent, BEIXMO Agro. Chem. Ltd. with 10 percent, and Rhone-Poulenc (BD) Ltd. with 9 percent. Typically the companies market their products through one of two distribution channels. One channel is from the company to company owned area warehouses to wholesalers who sell to retailers who sell to the farmers. The gross margin equals about 20 percent of the retail price with share between the wholesaler and retailer negotiated by them. A second channel is from the company directly to a regional wholesaler who sells to retailers who sell to farmers. The gross margin is 20-25 percent in this channel and is also negotiated between the wholesaler and retailer (Talukder and Rahman).

All these merchants require working capital financing that some of them obtain from banks but most depend upon other sources of funds. One dealer interviewed obtains bank financing using a loan against trust receipt (LTR) for up to 90 days to import pesticides and sell to retailers. He sells about 20 percent of his volume on credit to retailers and says that he could sell much more if he provided more credit. However, he is concerned about giving too much credit to retailers who may not be creditworthy. He does not charge interest explicitly to the retailer. Retailers sometimes sell on credit to farmers.

Constraints to Expanding Credit Capacity through Agricultural Input and Output Markets

Several constraints must be removed to expand the availability of credit to agribusinesses such as fertilizer dealers and output traders.

The expansion of loans is constrained by the passive and conservative orientation of the banking community which is accustomed to responding to Bangladesh Bank directives, and hence is slow to respond to new business opportunities. Bankers view lending to farmers and new agribusinesses as high risk because of earlier loan recovery problems. Furthermore, episodes of government forgiveness of agricultural loans increase the perceived risk of this type of lending.

Commercial bank lending decisions are dominated by collateral considerations. Banks place little weight on cash flow or on growth potential in making lending decisions. In most banks, a loan will be approved for about 50 percent of the appraised value

of the loan security. The preferred collateral is a time deposit in the bank or urban real estate such as a house or land. Banks typically will not accept mobile property such as trucks or barges. Frequently they do not accept a receipt for goods stored in warehouses as collateral for a loan. Many bankers are reluctant to lend to traders either because of explicit regulations, a perception that it is irregular, or bias against traders. Changes in rules and policy direction are needed especially to increase lending to rice and paddy traders.

The formal banking system makes less use than desirable of financing options such as cash-credit and accounts-receivable finance. Many bankers are unfamiliar with the forms and modalities for such finance. The mission was impressed that the cash credits to large traders in commodities such as rice and yarn are generally current and pay the highest interest rates permissible. However, bankers are reluctant to extend these credits. Loans on trust receipts are even rarer. Accounts receivable finance, as well as the financing of stocks, discount of bills of small fertilizer and other input customers, or hire purchase arrangements are not extensively used. These forms should help exert some downward pull (push) through the marketing system on any credit provided at higher levels.

Such an expansion of bank credit to traders would almost certainly lead to a considerable downward extension of informal lending to lower level traders and crop advances to farmers and loom owners. Informal loans to farmers and handloom operators would probably be at higher interest rates than those charged on formal loans, but the transaction costs would be lower for the borrower. These loans would be sustainable by farmers in normal times; that is, farmers would be able to increase production and income, and be in a position to pay the interest and repay the principal. Only recently have banks begun to lend significant amounts to input dealers in fertilizer and pumps.

While banks are reluctant, borrowers too may not be ready for expanded credit. Low educational levels among traders reduces their ability to appear creditworthy on bank loan applications. Merchants generally do not have financial records such as a balance sheets and profit/loss statements, and tax return that banks may require to qualify for a loan. In addition, bank paperwork may seem overly complicated and loan procedures are slow.

Conclusions on Input Supplier Credit

Agricultural input markets in Bangladesh divide into two distinct categories: the traditional and largely localized markets for land and labor, and the new and rapidly expanding markets for modern agricultural inputs and irrigation water. For purposes of

a potential Bank credit project, the latter is the more interesting category.

Until recently, the market for chemical fertilizers, improved seeds, farm chemicals, farm machinery and water pumping equipment was dominated by government. Recently, many of these marketing activities have been turned over to the private sector. As a result, many of the merchants who handle these inputs are new to the business and their working relationships with clients up and down the marketing system are in the formative stages. Since the willingness to provide credit sales is heavily dependent on trust, and trust, in turn, is closely related to the age of the working relationship, less informal lending occurs in these input markets compared to older product markets. Recent evaluations of the USAID sponsored fertilizer-merchant-credit program show that significant amounts of informal credit arrangements are developing in the fertilizer market and that some of this extends down to farmers. It is plausible to expect that these credit arrangements will expand and deepen as the working relationships between participants in these markets mature.

TABLE 1. SUMMARY OF TOTAL BANK FUNDS SANCTIONED/DISBURSED UNDER CCP(MAY 1989 - JUNE 30, 1992)

AMOUNT IN MILLION
EXCHANGE RATE US$ 1=TAKA 38

NAME OF BANK	AMOUNT SANCTIONED BY PARTICIPATING BANKS (MAY 1989-JUNE 30'92)		AMOUNT DISBURSED BY PARTICIPATING BANKS (ESTIMATED) (MAY 1989-JUNE 30'92)		AMOUNT OF REFINANCE SANCTIONED BY B B. (MAY 1989-JUNE 30'92)		AMOUNT OF REFINANCE DISBURSED TO PARTICPATING BANKS (MAY 1989-JUNE 30'92)		REPAYMENT BY PARTICIPATING BANKS TO B.B. (MAY 1989-JUNE 30'92)		AMOUNT DUE FROM PARTICIPATING BANKS ON 30.06.92	
	TAKA	US$	TAKA	US$	TAKA	US$	TAKA	US$	TAKA	US$	TAKA	US$
1	2		3		4		5		6		7	
NATIONAL BANK LTD.	711.50	18.72	569.20	14.98	497.16	13.08	497.16	13.08	399.84	10.52	97.32	2.56
ARAB BANGLADESH BANK LTD.	753.08	19.82	602.46	15.85	484.56	12.75	484.56	12.75	365.22	9.61	119.34	3.14
AGRANI BANK	518.05	13.63	414.44	10.91	346.67	9.12	346.67	9.12	257.50	6.78	89.17	2.35
SONALI BANK	262.08	6.90	209.66	5.52	97.46	2.56	97.46	2.56	60.27	1.59	37.19	0.98
RUPALI BANK LTD.	1092.95	28.76	874.36	23.01	473.88	12.47	468.03	12.32	331.66	8.73	136.37	3.59
UTTARA BANK LTD.	638.62	16.81	510.90	13.44	99.37	2.62	99.37	2.62	99.37	2.62	-	-
JANATA BANK	391.10	10.29	312.88	8.23	51.93	1.37	36.74	0.97	36.74	0.97	-	-
THE CITY BANK LTD	59.70	1.57	47.76	1.26	13.90	0.37	13.90	0.37	13.90	0.37	-	-
AL BARAKA BANK (BD) BANK	363.80	9.57	291.04	7.66	69.09	1.82	69.09	1.82	37.50	0.99	31.59	0.83
PUBALI BANK LTD.	248.49	6.54	198.79	5.23	143.23	3.77	143.23	3.77	114.01	3.00	29.22	0.77
IFIC BANK LTD.	399.40	10.51	319.52	8.41	312.40	8.22	312.40	8.22	219.50	5.78	92.90	2.44
UNITED COMMERCIAL BANK LTD.	263.75	6.94	211.00	5.55	44.80	1.18	18.95	0.50	18.95	0.50	-	-
[illegible]ISHANI KRISHI [illegible]AYAN BANK	5.05	0.13	4.04	0.11	2.87	0.08	2.87	0.08	2.87	0.08	-	-
BANGLADESH KRISHI BANK	8.57	0.23	6.86	0.18	-	-	-	-	-	-	-	-
ISLAMI BANK(BD)LTD.	1236.60	32.54	989.28	26.03	-	-	-	-	-	-	-	-
TOTAL :	6952.74	182.97	5562.19	146.37	2637.32	69.40	2590.43	68.17	1957.33	51.51	633.10	16.66

Source: IFDC

TABLE 2 . USE OF CREDIT BY FARMERS FOR FERTILIZER PURCHASE DURING FEBRUARY, 1990

	Farmers who used credit					
				With interest		
Source	Total	% of the total sample	Without interest (No.)	Number	Average duration (No.of days)	Annual average interest %
1. Dealer	28	2.74	28	-	13	-
2. Bank	18	1.77	-	18	363	16.00
3. Money lender	58	5.69	-	58	134	51.14
4. Friends/ relatives	53	5.20	53	-	25	-
All	157	15.39	81	76	102	42.82
January, 1990	139	11.16	89	50	78	65.68
February, 1989	208	16.65	111	97	73	31.12

Source: IFDC

CURRENT FERTILIZER MARKETING STRUCTURE

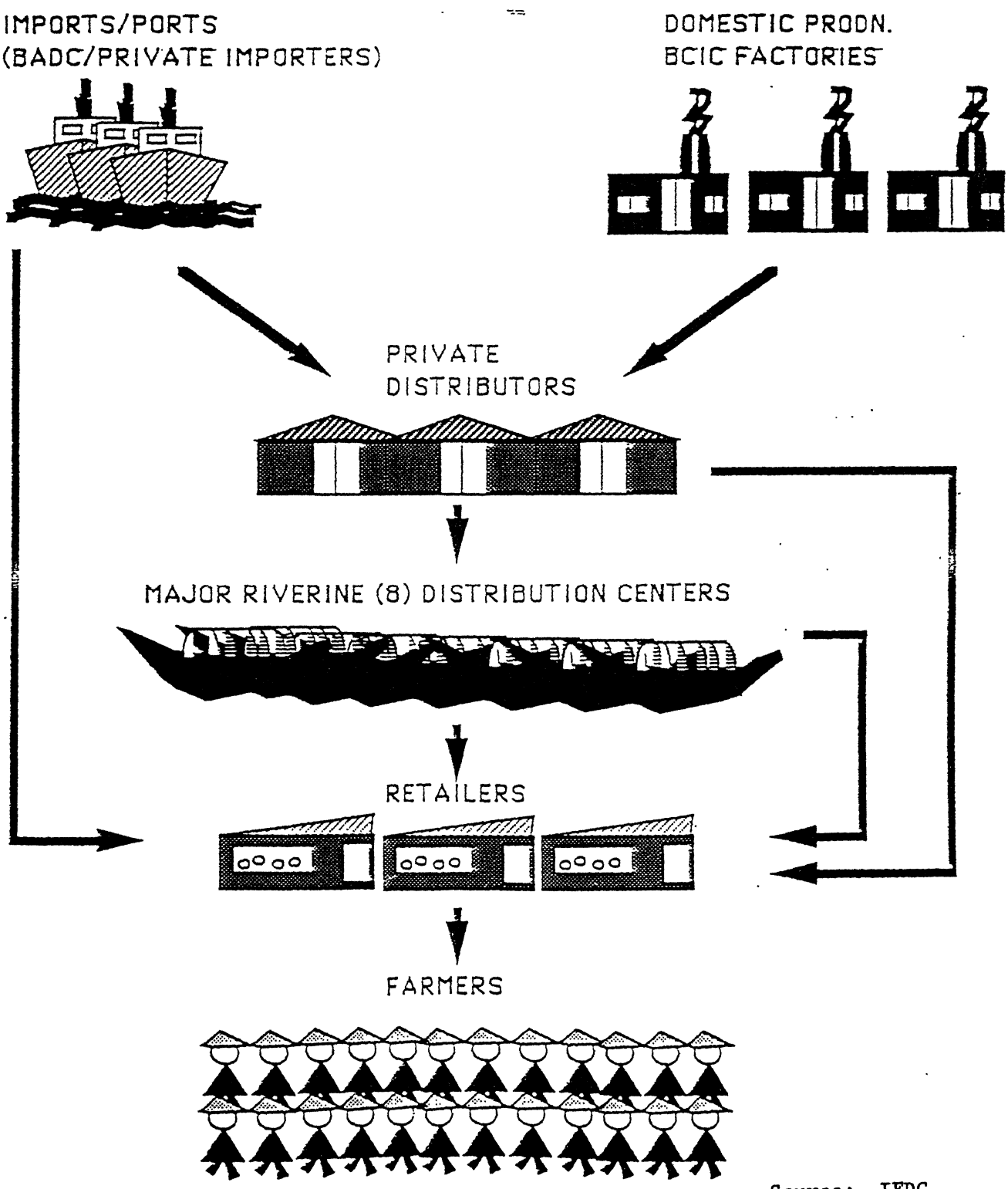
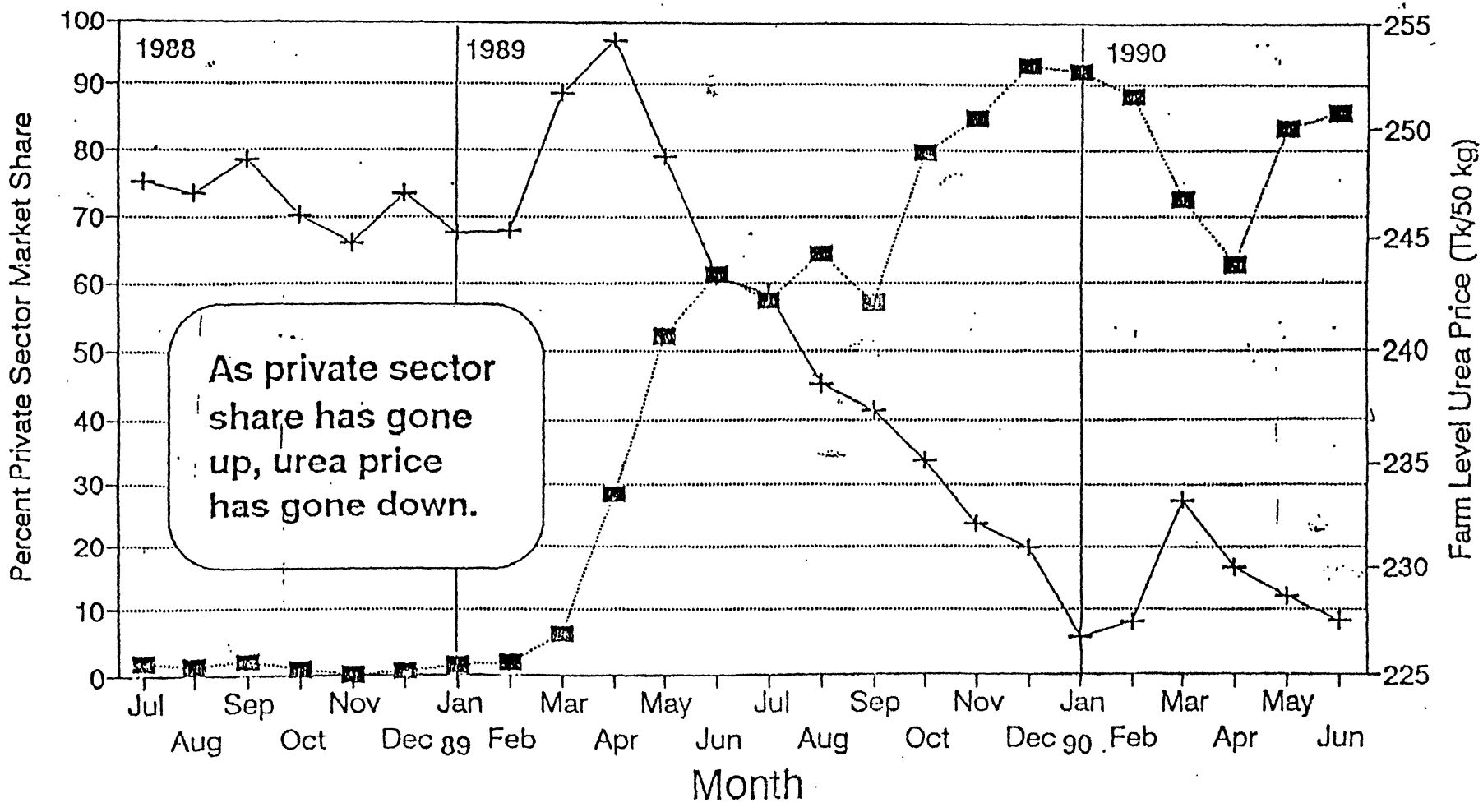


FIGURE - 1

Source: IFDC

FIGURE 2

Private Sector Market Share and Urea Prices in Bangladesh



Source: IFDC Annual Report

References

Associated Services. "Bangladesh Shallow Tubewell and Lowlift Pump Irrigation Project: Equipment Dealers and Their Operation." Report to World Bank/Dhaka, July, 1990, 30 p.

Crow, Ben and K.A.S. Murshid. Foodgrain Markets in Bangladesh: Traders, Producers and Policy." Report to Economic and Social Committee for Overseas Research of the UK Overseas Developmen Corporation." October, 1991. 125 p.

Deloitte, Haskins and Sells. "Fertilizer Marketing in Bangladesh." EDI Working Papers, The Economic Development Institute of The World Bank, August, 1989, 17p.

Gain, Phillip. "BADC: Pangs of Privatisation." Dhaka Courier:An Independent Newsweekly Vol. 8, Issue 49, July 10, 1992, pp 17-18.

Gisselquist, David. "Bangladesh Minor Irrigation Subsector Study: Economic and Administrative Issues." Consultant Report Prepaed for the World Bank, Dhaka, November, 1988.

Haq, Md. Irshadul. "Development of Agribusiness Entrepreneurship in Agricultural Inputs/Produce Marketing Oriented to Provide Informal Suppliers' Credit to Farmers/Producers." March, 1992, 12 p.

Hossain, Mosharaff. "Agricultural Inputs." Chapter XI in Agriculture in Bangladesh: Performance Problems and Prospects Dhaka: University Press Limited, 1991, pp.213-240.

International Fertilizer Development Center. "Annual Report 1990-91." Fertilizer Distribution Improvement Project II, Funded by U.S. Agency for International Development, Dhaka, 48 p.

International Fertilizer Development Center. "Farmers' Survey Report." Dhaka, February, 1990, 40 p.

Khan, Benazir Ahmed. "Informal Agricultural Credit." Report Prepared for The World Bank, Dhaka, July 2, 1992. 20 p.

Murshid, K.A.S. and Atiq Rahman. "Rural Informal Financial Markets in Bangladesh: An Overview." Research Report No. 126, Bangladesh Institute of Development Studies, Dhaka, December, 1990. 79 p.

Mondal, Abdul Hye and Abdul Latif. "Production Performance of the Fertilizer Industry and Procurement and Distribution of Fertilizers in Bangladesh." Bangladesh Agriculture Sector Review, United Nations Development Program, October, 1988, pp.52-101.

Sidhu, Surjit S. "Development of a Competitive Free Market Structure for Fertilizer in Bangladesh: IFDC Experience at Policy Reform." Paper Presented at the Training Workshop on Policy Issues affecting Fertilizer Sector Development and Sustainable Agriculture. Dhaka, September, 1991. 66p.

Subrahmanyan, K.R. "Bangladesh Agricultural Credit Project (Minor Irrigation)." IDA Credit No. 1147-BD., Final Report Part I, 291 pages and Part II, 365 pages, Bangladesh Bank, Rural Credit Project Department, Dhaka, Bangladesh. July, 1984.

Talukder, Abu Sayeed and Mijanur Rahman, "Marketing of Pesticides in Bangladesh." The Dhaka University Studies, Vol. XII, No. 1, June, 1991. pp. 115-125.

The World Bank. "Bangladesh Shallow Tubewell and Low Lift Pump Irrigation Project." Staff Appraisal Report No. 9003-BD, May, 1991.

Quasem, MD. Abul. "The Impact of Privatization on Entrepreneurial Development in Bangladesh Agriculture." The Bangladesh Development Studies Vol. XIV, No. 2, June, 1988. pp. 1-19.

Quasem, MD. Abul. "Impact of the New System of Distribution of Fertilizer and Irrigation Machines in Bangladesh-Survey Findings." Research Report No. 62, Bangladesh Institute of Development Studies, August, 1987, 84 p.

Stone, Bruce (edt.). "Fertilizer Pricing Policy in Bangladesh." International Food Policy Research Institute and Bangladesh Institute of Development Studies, December, 1987. 457 p.

U.S. Agency for International Development. "Agribusiness Technology Development Project Proposal." Project Identification Document (PID) prepared for USAID/Dhaka, May, 1992, 40p.

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